#### Message

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**Sent**: 1/10/2018 3:19:20 PM

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Subject: SHC's Weekly Report for January 10, 2018

# Sustainable and Healthy Communities (SHC) Research Program

Report for Week of January 8-12, 2018

Our Motto: Public Health & Well-being from Nature's Benefits; Innovations in Remediation

#### Hot Issues

None.

### SHC News

#### SHC Soil and Dust Research Continues to Have Impact

The research paper "Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-making," by SHC researcher Valeria Zartarian, Jianping Xue, Rogelio Tornero-Valez, and James Brown, continues to generate attention and contribute to the Agency's commitment to protecting children's environmental health. Since its original online publication in September, 2017 the paper has received 2,109 page views by 1,799 individuals. Also, EPA's Office of Children's Health Protection has asked the researchers about using the relative exposure pathway contribution presented in the paper for the draft Federal Lead Strategy.

Citation: Zartarian, V., Xue, J., Tornero-Velez, R., & Brown, J. (2017). Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making. *Environmental Health Perspectives*, 125(9), 097009-097009.

# **Upcoming Events:**

Grantee Kick Off Meeting: Integrating Human Health and Well-Being with Ecosystem Services

January 25 and 26, 2018 Research Triangle Park

SHC and NCER are teaming up to host four newly awarded research project teams under the RFA, "INTEGRATING HUMAN HEALTH AND WELL-BEING WITH ECOSYSTEM SERVICES" for collaborative, community-based research that will foster better understanding of how ecosystems support human health and well-being. The funded research teams will examine how communities can integrate ecosystem services with human health and well-being to inform decision-making and management practices. The information developed will allow communities to integrate environmental,

societal, and economic information and to better manage multiple stressors and their cumulative impacts on humans and ecosystems. The ultimate goal is to help communities achieve their own objectives.

## International Association for Landscape Ecology Conference

April 8-12, 2018 Chicago, IL

Multiple SHC scientists will present research on ecosystem goods and services as well as linkages between ecology and human health at the US Regional – International Association for Landscape Ecology's Annual Meeting in Chicago. The presentations will include: highlighting a new method for mapping floodplains in areas that lack inundation maps, assessing the value of vegetative cover and landscape management practices in limiting sediment runoff due to extreme weather events, and exploring the effects of exposure to natural environments on obesity rates and perceived general health and well-being.

### National Council for Science and the Environment (NCSE)

January 23-24, 2018

The National Council for Science and the Environment (NCSE) will hold its 18th National Conference and Global Forum, *The Science, Business, and Education of Sustainable Infrastructure: Building Resilience in a Changing World.* SHC's Alan Hecht has been an advisor in planning the event which will explore how systems thinking and a sustainability framework can serve society through natural or built infrastructure.

On January 25 the NCSE will also host a dialogue on Science Policy Communications Training, which Hecht will also be attending. At the meeting science, technology, government, business, civil society, and education leaders will discuss cutting-edge issues, and explore how new technology and best practices can contribute to sustainability planning.

### **New Partners for Smart Growth**

Feb 1 - 3, 2018

SHC will present materials and tool demonstrations at an exhibition booth at the New Partners for Smart Growth conference in San Francisco. In addition, the Region 10 RESES project, *Decision Integration for Strong Communities*, which is utilizing SHC tools, will be discussed in a panel presentation by SHC scientists involved. SHC had extra free registrations with our sponsorship, and three Region 9 staff will now be able to attend the conference in their town.

# Recent Publications and Reports: The December SHC STICS Report

The following SHC research publications were marked "completed" in ORD's Scientific & Technical Information Clearance System (STICS). STICS is an electronic clearance system for scientific and technical products and is available to ORD employees.

Scientific Journal Articles

Datry, T., Boulton, A. J., Bonada, N., Fritz, K., Leigh, C., Sauquet, E., ... & Dahm, C. N. Flow intermittence and ecosystem services in rivers of the Anthropocene. *Journal of Applied Ecology*.

Daughton, C. G. (2018). Monitoring wastewater for assessing community health: Sewage Chemical-Information Mining (SCIM). Science of The Total Environment, 619, 748-764.

Baho, D., Allen, C., Garmestani, A., Fried-Petersen, H., Renes, S., Gunderson, L., & Angeler, D. (2017). <u>A quantitative</u> framework for assessing ecological resilience. *Ecology and Society*, *22*(3).

Scown, M. W., Flotemersch, J. E., Spanbauer, T. L., Eason, T., Garmestani, A., & Chaffin, B. C. (2017). People and water: Exploring the social-ecological condition of watersheds of the United States. *Elem Sci Anth*, 5.

Saneiyan, S., Ntarlagiannis, D., Werkema, D. D., & Ustra, A. (2017). <u>Geophysical methods for monitoring soil stabilization processes</u>. *Journal of Applied Geophysics*.

Terry, N., Day-Lewis, F. D., Robinson, J. L., Slater, L. D., Halford, K., Binley, A., ... & Werkema, D. (2017). <u>Scenario</u> Evaluator for Electrical Resistivity Survey Pre-modeling Tool. *Groundwater*.

Yang, Y., Ingwersen, W. W., & Meyer, D. E. (2018). Exploring the relevance of spatial scale to life cycle inventory results using environmentally-extended input-output models of the United States. Environmental Modelling & Software, 99, 52-57.

Martin, D. M., & Mazzotta, M. (2018). Non-monetary valuation using Multi-Criteria Decision Analysis: Sensitivity of additive aggregation methods to scaling and compensation assumptions. Ecosystem Services, 29, 13-22.

#### Book Chapter

Benotti, M. J., Lefkovitz, L., & Mills, M. A. (2018). Use of Passive Samplers to Determine the Source of Dissolved PAHs in the Ottawa River, Toledo, Ohio. In *Oil Spill Environmental Forensics Case Studies* (pp. 465-481). (EPA Science Inventory reference)

#### Fact Sheet

Lyon, S., K. Mulvaney, N. Merrill, AND M. Mazzotta. *How many people use the Three Bays estuary system for recreation?* US EPA Office of Research and Development, Washington, DC, EPA/600/F-17/194, 2017. (EPA Science Inventory reference)